OIPE

RAW SEQUENCE LISTING   · DATE: 08/07/2002 ρ.6
PATENT APPLICATION: US/10/016,157A   TIME: 11:29:43

Input Set : A:\DEX-0253.ST25.txt
Output Set: N:\CRF3\08072002\J016157A.raw

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 3 <110> APPLICANT: Sun, Yongming
 4        Recipon, Herve
 5        Ghosh, Malavika
 6        Liu, Chenghua
 8 <120> TITLE OF INVENTION: Compositions and Methods Relating to Colon Specific Genes
and Proteins
10 <130> FILE REFERENCE: DEX-0253
12 <140> CURRENT APPLICATION NUMBER: US 10/016,157A
13 <141> CURRENT FILING DATE: 2001-10-31
15 <150> PRIOR APPLICATION NUMBER: US 60/244,717
16 <151> PRIOR FILING DATE: 2000-10-31
18 <160> NUMBER OF SEQ ID NOS: 250
20 <170> SOFTWARE: PatentIn version 3.1
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23 <211> LENGTH: 421
24 <212> TYPE: DNA
25 <213> ORGANISM: Homo sapiens
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32 agtgaaagac cagataaatc ttttagttgg gaagtatgtc ttgaggtata cttccttata     180
34 atcattaagt aaataagtaa aactatatta catagataat gtgtaactct ctgtattaca     240
36 tagaatgtct gcagaatgta gataggaaaa ataaagtttg tcaataattt tcaacatctt     300
38 tattgagata cagttaatct gccatgacga tttgcctact ataaagtgta catttcagtg     360
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42 c                                                                      421

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55 agcacacaga tacaagtatg tgcttgatat gtaaccaaag taagttaaac tccttattta     180
57 atcttagcac ctgtctaaag gctgggtgac tgtatttata gatgaggaaa actgaaaatt     240
59 gggggccaag gggcagtgaa gtgaagtgac ttgttctatg atacacagct agtaggaata     300
61 ttagcactgg aatttgaatt tcatgccatc ccattccaac ctgggtgttt actacttccc     360
63 actatctccc aagcatgggt attttaggaa atatagaaca ttttctcagc aatacagact     420
65 tatttc                                                                 426

68 <210> SEQ ID NO: 3
69 <211> LENGTH: 1016
70 <212> TYPE: DNA
71 <213> ORGANISM: Homo sapiens
73 <220> FEATURE:
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Input Set : A:\DEX-0253.ST25.txt
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 76 <223> OTHER INFORMATION: n=a, c, g or t
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 84 agcacacaga tacaagtatg tgcttgatat gtaaccaaag taagttaaac tccttattta     180
 86 atcttagcac ctgtctaaag gctgggtgac tgtatttata gatgaggaaa actgaaaatt     240
 88 gggggccaag gggcagtgaa gtgaagtgac ttgttctatg atacacagct agtaggaata     300
 90 ttagcactgg aatttgaatt tcatgccatc ccattccaac cctgggtgtt tactacttcc     360
 92 cactatctcc caagcatggg tattttagga aatatagaac attttctcag caatacagac     420
W--> 94 ttatttctct attctccttt ccacatactc tcttttccct taacaacann nnnnnnnnnn     480
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104 tcaatttcag acatacttcc tccagccctc tctaaactac ccaccagtct tcgcccctct     780
106 tttcttagtt ctgtggcact tgccctgggt gccctaactg tatggcatgc tgttctcatc     840
108 agtcgaggtg agactagcat cgaaaggcac atcaacaaga aggagagacg tcggctacag     900
110 gccaagggca gagtgagtag ggttgaaggc tcggggtggg taggtgggta actgaacttg     960
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125 aaatctctct ctgtggctgt tgggccccag ggcagctgaa gagggttgac agccctttgg     180
127 acctcaaagg aaaaaatgtg ctctactcca cccactccca gctctgccaa gaagctgtcc     240
129 tctgagaagc catggctggg ccgttccatt ctggggagct gctgaaaaga gctgggaggc     300
131 cgagaagaac ttgcgtgtgc tgggggagag gaagcctggc cttgagggag gggtgcaggt     360
133 gtggctcctg tgtgtgtggg ggctggggga ccttgtgtgc cttttccttg tggctgtgaa     420
135 atgctttatg agtacttcca taggaggatg gacagggagt cggggagata aactcagcca     480
137 caaggcccca gggcctcagg aaacttgcac ccaaccctct catttтacag aagaaaactg     540
139 tgcctggaag gttgaagggt ttgttcccag tcacacaacc agggatcctt aggacagcca     600
141 gaccaggaaa ccatttccaa actgccaagc catggcagag tatcaagacc tcaggaacca     660
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151 tcctggtgat ggggggttcc tcagcacaaa agtgaagggg tggaggggct ggaggagcag     960
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155 ggacgcttcg gggctgatct ttgagttttc aagcatgggg tgcagagacg tttaggtaaa    1080
157 ctcttaccgt cctctctctt cgtcaggct tcccaggaat caacaatgcc caagaaggaa    1140
159 gggattgtag aaatagctta acccttcat ttaccaacgt ggaaattgaa gcccagggaa    1200
161 gggaagggac cggtcgtgga agggagagcc atcagcagaa agagaccctg agatcttcgc    1260
163 ctgggattcc caggaagtcc agcccgagct gattcacaga acaaatgcat gcaaaccttg    1320
165 ctatcaataa attacacatg cacttacgta aaacacat                            1358
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Input Set : A:\DEX-0253.ST25.txt
Output Set: N:\CRF3\08072002\J016157A.raw

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176 tatttctcag gatgaccctg cgagacaggc cagggtcatt agacccaatt tggttctcag   120
178 caaatatgtg tttattcctg catgcgtggg ccacaggctg gtttcttggg tgcaatgaat   180
180 agctgcaggt ttattagggt gtcttttag atggatgtat gtttcccgat gtctatagaa   240
182 cactccggac cccggagagt gaagactctg cctgtcggac ttgctttgag aagatccttc   300
184 tccacctccc catggcagaa gttgcttcac agaggggaac agttttatgg atgtggctga   360
186 gaccttaaac ttgaggcaac ccatctgagg tggcatccag aggagactgg ctggcccctc   420
188 cttcaccttg gatgtagtgc tgtttctagg atctcttttc aatcagcaaa acaggggatg   480
190 ttccaagagg gtgtggattc cctgccatcc cacatggtca agtggagggg acgggaaaaa   540
192 gctatgaagg gtttgtgacc acacagactc tcctggcccc ctgtcctttt ggaaagaaga   600
194 cagggatgaa atataatcaa gcaattaacc acccccatca tcaccaagaa caacagtatc   660
196 aacaagaaga acagggacaa caaaacccac ggatgaaaca ttcctttctc agctcagatc   720
198 ttatctggtg cgttctctct ctgctctgtc ttggtgtgtg gtttagagaa acatggacaa   780
200 cgctgtttgg aagaacaggt gagcgagggt ggggaatttc agaggcctgg cccaccgcc   840
202 tccaccccctt ccccagttta acctttgaca ggatcttcac ctctctctga tcagcattgc   900
204 ttcttgttca aaggcctcag ccacccagct gtgtccctтт ccccagaaag caagggcaga   960
206 tggcagtggg tctgttgatg agagaacttt aagggcccaa tcagtccctg ggcacccct  1020
208 cctgggctcg ttttctccag gaggctgcat tctgatccat aaaccttctc ctcggggttt  1080
210 agggtcgagc tgttcctgat gtttatcgga gactgggatc aaagctatcc aggtcataaa  1140
212 tctctctctg tggctgttgg gccccagggc agctgaagag ggttgacagc cctttggacc  1200
214 tcaaaggaaa aaatgtgctc tactccaccc actcccagct ctgccaagaa gctgtcctct  1260
216 gagaagccat ggctgggccg ttccattctg gggagctgct gaaaagagct gggaggccga  1320
218 gaagaacttg cgtgtgctgg gggagaggaa gcctggcctt gagggagggg tgcaggtgtg  1380
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222 ctttatgagt acttccatag gaggatggac agggagtcgg ggagataaac tcagccacaa  1500
224 ggccccaggg cctcaggaaa cttgcaccca accctctcat tttacagaag aaaactgtgc  1560
226 ctggaaggtt gaagggtttg ttcccagtca cacaaccagg gatccttagg acagccagac  1620
228 caggaaacca tttccaaact gccaagccat ggcagagtat caagacctca ggaaccatcg  1680
230 agacaccatg gaagcattgg gaaaagcctc cttagctttt gaagctcctc attgttcttg  1740
232 agtgtgcatg gagcccatga ctgcggggtt ttgtagacac ctcagggatt acatgactgg  1800
234 tacccctgac aaagtcaagg ctgctggaca aaatgagtcc gaggatttca ggggcacgct  1860
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238 tggtgatggg gggttcctca gcacaaaagt gaaggggtgg aggggctgga ggagcaggaa  1980
240 tctctcttgt tgataggtat gaggccttga agtccttttc tttgtcccag gattcatgga  2040
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248 aagggaccgg tcgtggaagg gagagccatc agcagaaaga gaccctgaga tcttcgcctg  2280
250 ggattcccag gaagtccagc ccgagctgat tcacagaaca aatgcatgca aaccttgcta  2340
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      275 <223> OTHER INFORMATION: n=a, c, g or t
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      283 ctttcacaaa tattgtccac cctaagtatg tttactataa tgttagctgt taaagacccc   180
      285 tcctaccccc aaaccattta cccttcaata aaaatggtgc caagttgcaa gggttagaca   240
      287 ggtatgtatt gaaatttaga aagtttgaat aatttcttta acacaaaagc attttttttct  300
      289 tatttctcat acttttgaat ctatttaaat acaacttcag tgctgattaa tctactaaat   360
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      310 cttttccttt cacaaatatt gtccacccta agtatgttta ctataatgtt agctgttaaa   180
      312 gacccctcct accccccaaac catttaccct tcaataaaaa tggtgccaag ttgcaagggt   240
      314 tagacaggta tgtattgaaa tttagaaagt ttgaataatt tctttaacac aaaagcattt   300
      316 ttttcttatt tctcatactt ttgaatctat ttaaatacaa cttcagtgct gattaatcta   360
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      329 cctgttgtat ctgagaagtt tgttatgaaa tattttggta accgctgcat agtcagtgta   120
      331 ggaggagcag atgaatttta gctgtggtta tgtgtgctgt aaaagactat acgtgcttgt   180
      333 attagtcaga atgagtacac cactaatttt tgtatggtaa gagatttata ctaagctcat   240
      335 catcagtttc tataattcag tgagataaaa ctgagtcaga ttgattttta ggtagcacat   300
      337 gtagaaacag ctaatttat tcccctgatt tgatcctcat ctattgatta tataaactaa   360
      339 agaagctaag aacaattaac ccttacgagg ttacacagtc aggagatgct gaactgagat   420
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RAW SEQUENCE LISTING   DATE: 08/07/2002
PATENT APPLICATION: US/10/016,157A   TIME: 11:29:44

Input Set : A:\DEX-0253.ST25.txt
Output Set: N:\CRF3\08072002\J016157A.raw

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347 aaatcatttc agttgcctaa atttaagcaa ctgtgctgtt taaaacatgc tcattcacat      660
349 ttttttcttaa tctagaaagt cacttctgaa taattgcttg tttagatttt ctcatttggt     720
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353 gtccac                                                                786
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364 tctcaaataa ggcaagaagc atctgctgtt aatagctgac agtaaattac acaaagtaaa      120
366 acatggaaaa ttaaagtcag aaaagctagg aagcttttct atcattttca attttctgca      180
368 aaaatacaga cataatcagg tttaggatct gcttgtgatg gataaaattac atctgtaatt     240
370 ccttcttttc catattactg cattcagacg ataatttgct ttcagatatc ttgctcatct      300
372 aatcgttcat agactggaaa taagtagtaa catctcccaa tcctaggaag catttataac      360
374 tagtctttgc ctttttgggt gttgatagac tagtggtgat tataagcttt cgagcttctg      420
376 aaaagcacaa cgaagattaa aataatcata ggataataaa atactttaaa acccttctag      480
378 tctttaattt taaaatgttc cagtagaaca caaatttgct caggtaacac acaagtaagc      540
380 attaaatgcc ttcctgtgta tctgagaagt ttgttatgaa atattttgga aaccgctgca      600
382 tagtcagtgt aggaggagca gatgaatttt agctgtggtt atgtgtgctg taaaagacta      660
384 tacgtgcttg tattagtcag aatgagtaca ccactaattt ttgtatggta agagatttat      720
386 actaagctca tcatcagttt ctataattca gtgagataaa actgagtcag attgatttt      780
388 aggtagcaca tgtagaaaca gctaatttta ttcccctgat ttgatcctca tctattgatt      840
390 atataaacta agaagctaa gaacaattaa cccttacgag gttacacagt caggagatgc      900
392 tgaactgaga ttcagtgtag aaagtctgtc ttcagagcct atgctttag tctttatgct      960
394 aagtttaact tgtttaaata gcaagattat gaagcactat acagtgacct cgtatagaca     1020
396 aaaatatagt atattgatta ttagagaaac tacatattag actgttgtac atacgtgggc     1080
398 aagtatttgt taaatcattt cagttgccta aatttaagca actgtgctgt ttaaaacatg     1140
400 ctcattcaca ttttttctta atctagaaag tcacttctga ataattgctt gtttagattt     1200
402 tctcatttgg tgtgggaaat ttatattaaa attttaacta atattctaac aatacagagt     1260
404 ctgaacctaa agtccagaag aatttttaagt catgccgcag acaggatgaa cagtatagca     1320
406 aatcagaata atagactgtg aggggggta gggggggaacc catgagaatt tcaggatgtc     1380
408 aagataaagc ttggaattga ggtaaaggca tcagataagg aagtgatcat ttcataactt     1440
410 gttttttgctt gaaatatatt atattttaca tcacaaaagt agtataactg ttattttgct     1500
412 aatgcacag                                                            1509
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416 <211> LENGTH: 283
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418 <213> ORGANISM: Homo sapiens
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425 ttttatgttt tatttcagct tttaaaaaga ttttcatgat tcatgattgt tgtaaagcag      180
427 gactaggctg tatgtacata tttgaaatga aagtttcaca aaacatcatt tacctttact      240
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432 <210> SEQ ID NO: 11
433 <211> LENGTH: 736
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 08/07/2002
PATENT APPLICATION: US/10/016,157A   TIME: 11:29:45

Input Set : A:\DEX-0253.ST25.txt
Output Set: N:\CRF3\08072002\J016157A.raw

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:64; N Pos. 411
Seq#:69; N Pos. 309,310,311,312,313,314,315,316,317,318,319,320,321,322,323
Seq#:69; N Pos. 324,325,326,327,328,329,330,331,332,333,334,335,336,337,338
Seq#:69; N Pos. 339,340,341,342,343,344,345,346,347,348,349,350,351,352,353
Seq#:69; N Pos. 354,355,356,357,358,359,360,361,362,363,364,365,366,367,368
Seq#:69; N Pos. 369,370,371,372,373,374,375,376,377,378,379,380,381,382,383
Seq#:69; N Pos. 384,385,386,387,388,389,390,391,392,393,394,395,396,397,398
Seq#:69; N Pos. 399,400,401,402,403,404,405,406,407,408,409,410,411,412,413
Seq#:69; N Pos. 414,415,416,417,418,419,420,421,422,423,424,425,426,427,428
Seq#:69; N Pos. 429,430,431,432,433,434,435,436,437,438,439,440,441,442,443
Seq#:69; N Pos. 444,445,446,447,448,449,450,451,452,453,454,455,456,457,458
Seq#:69; N Pos. 459,460,461,462,463,464,465,466,467,468,469,470,471,472,473
Seq#:69; N Pos. 474,475,476,477,478,479,480,481,482
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Seq#:71; N Pos. 7153
Seq#:74; N Pos. 85
Seq#:83; N Pos. 354,355,356,357,358,359,360,361,362,363,364,365,366,367,368
Seq#:83; N Pos. 369,370,371,372,373,374,375,376,377,378,379,380,381,382,383
Seq#:83; N Pos. 384,385,386,387,388,389,390,391,392,393,394,395,396,397,398
Seq#:83; N Pos. 399,400,401,402,403,404,405,406,407,408,409,410,411,412,413
Seq#:83; N Pos. 414,415,416,417,418,419,420,421,422,423,424,425,426,427,428
Seq#:83; N Pos. 429,430,431,432,433,434,435,436,437,438,439,440,441,442,443
Seq#:83; N Pos. 444,445,446,447,448,449,450,451,452,453,454,455,456,457,458
Seq#:83; N Pos. 459,460,461,462,463,464,465,466,467,468,469,470,471,472,473
Seq#:83; N Pos. 474,475,476,477,478,479,480,481,482,483,484,485,486,487,488
Seq#:83; N Pos. 489,490,491,492,493,494,495,496,497,498,499,500,501,502,503
Seq#:83; N Pos. 504,505,506,507,508,509,510,511,512,513,514,515,516,517,518
Seq#:83; N Pos. 519,520,521,522,523,524,525,526,527,528,529,530,531,532,533
Seq#:83; N Pos. 534,535,536,537,538,539,540,541,542,543,544,545,546,547,548
Seq#:83; N Pos. 549,550,551,552,553,554,555,556,557,558,559,560,561,562,563
Seq#:83; N Pos. 564,565
Seq#:84; N Pos. 12
Seq#:87; N Pos. 1012,1013,1014,1015,1016,1017,1018,1019,1020,1021,1022,1023
Seq#:87; N Pos. 1024,1025,1026,1027,1028,1029,1030,1031,1032,1033,1034,1035
Seq#:87; N Pos. 1036,1037,1038,1039,1040,1041,1042,1043,1044,1045,1046,1047
Seq#:87; N Pos. 1048,1049,1050,1051,1052,1053,1054,1055,1056,1057,1058,1059
Seq#:87; N Pos. 1060,1061,1062,1063,1064,1065,1066,1067,1068,1069,1070,1071
Seq#:87; N Pos. 1072,1073,1074,1075,1076,1077,1078,1079,1080,1081,1082,1083
Seq#:87; N Pos. 1084,1085,1086,1087,1088,1089,1090,1091,1092,1093,1094,1095
Seq#:87; N Pos. 1096,1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107
Seq#:87; N Pos. 1108,1109,1110,1111,1112,1113,1114,1115,1116,1117,1118,1119
Seq#:88; N Pos. 437
Seq#:91; N Pos. 406,411,412,421
Seq#:92; N Pos. 551,556,557,566
Seq#:93; N Pos. 297,298,299,300,301,302,303,304,305,306,307,308,309,310,311
Seq#:93; N Pos. 312,313,314,315,316,317,318,319,320,321,322,323,324,325,326
Seq#:93; N Pos. 327,328,329,330,331,332,333,334,335,336,337,338,339,340,341
Seq#:93; N Pos. 342,343,344,345,346,347,348,349,350,351,352,353,354,355,356
Seq#:93; N Pos. 357,358,359,360,361,362,363,364,365,366,367,368,369,370,371
Seq#:93; N Pos. 372,373,374,375,376,377,378,379,380,381,382,383,384,385,386
Seq#:93; N Pos. 387,388,389,390,391,392,393,394,395,396,397,398,399,400,401
Seq#:93; N Pos. 402,403,404,405,406,407,408,409,410,411,412,413,414,415,416
Seq#:93; N Pos. 417,418,419,420,421,422,423,424,425,426,427,428,429,430,431
Seq#:93; N Pos. 432,433,434,435,436,437,438,439,440,441,442,443,444,445,446
Seq#:93; N Pos. 447,448,449,450,451,452,453,454,455,456,457,458,459,460,461
Seq#:93; N Pos. 462,463,464,465,466,467,468,469,470,471,472,473,474,475,476
Seq#:93; N Pos. 477,478,479,480,481,482,483,484,485,486,487,488,489,490,491
Seq#:93; N Pos. 492,493,494,495,496,497,498,499,500,501,502,503,504,505,506
Seq#:93; N Pos. 507,508,509,510,511,512,513,514,515,516,517,518,519,520,521
Seq#:93; N Pos. 522,523,524,525,526,527,528,529,530,531,532,533,534,535,536
Seq#:93; N Pos. 537,538,539,540,541,542,543,544,545,546,547,548,549,550,551
Seq#:93; N Pos. 552,553,554,555,556,557,558,559,560,561,562,563,564,565,566
Seq#:93; N Pos. 567,568,569,570,571,572,573,574,575,576,577,578,579,580,581
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Seq#:93;  N Pos.  597,598,599,600,601,602
Seq#:95;  N Pos.  480
Seq#:97;  N Pos.  326,331,337,371
Seq#:99;  N Pos.  338,339,340,341,342,343,344,345,346,347,348,349,350,351,352
Seq#:99;  N Pos.  353,354,355,356,357,358,359,360,361,362,363,364,365,366,367
Seq#:99;  N Pos.  368,369,370,371,372,373,374,375,376,377,378,379,380,381,382
Seq#:99;  N Pos.  383,384,385,386,387,388,389,390,391,392,393,394,395,396,397
Seq#:99;  N Pos.  398,399,400,401,402,403,404,405,406,407,408,409,410,411,412
Seq#:99;  N Pos.  413,414,415,416,417,418,419,420,421,422,423,424,425,426,427
Seq#:99;  N Pos.  428,429,430,431,432,433,434,435,436,437,438,439,440,441,442
Seq#:99;  N Pos.  443,444,445,446,447,448,449,450,451,452,453,454,455,456,457
Seq#:99;  N Pos.  458,459,460,461,462,463,464,465,466,467,468,469,470,471,472
Seq#:99;  N Pos.  473,474,475,476,477,478,479,480,481,482,483,484,485,486,487
Seq#:99;  N Pos.  488,489,490,491,492,493,494,495,496,497,498,499,500,501,502
Seq#:99;  N Pos.  503,504,505,506,507,508,509,510,511,512,513,514,515,516,517
Seq#:99;  N Pos.  518,519,520,521,522,523,524,525,526,527,528
Seq#:100; N Pos.  48
Seq#:102; N Pos.  603
Seq#:103; N Pos.  96,140
Seq#:106; N Pos.  357,367,391,407,410,430
Seq#:107; N Pos.  466
Seq#:108; N Pos.  824
Seq#:115; N Pos.  428
Seq#:122; N Pos.  74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92
Seq#:122; N Pos.  93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108
Seq#:122; N Pos.  109,110,111,112,113,114,115,116,117,118,119,120,121,122
Seq#:122; N Pos.  123,124,125,126,127,128,129,130,131,132,133,134,135,136
Seq#:122; N Pos.  137,138,139,140,141,142,143,144,145,146,147,148,149,150
Seq#:122; N Pos.  151,152,153,154,155,156,157,158,159,160,161,162,163,164
Seq#:122; N Pos.  165,166,167,168,169,170,171,172,173,174,175,176,177,178
Seq#:122; N Pos.  179,180,181,182,183,184,185,186,187,188,189,190,191,192
Seq#:122; N Pos.  193,194,195,196,197,198,199,200,201,202,203,204,205,206
Seq#:122; N Pos.  207,208,209,210,211,212,213,214,215,216,217,218,219,220
Seq#:122; N Pos.  221,222,223,224,225,226,227,228,229,230,231,232,233,234
Seq#:122; N Pos.  235,236,237,238,239,240,241,242,243,244,245,246,247,248
Seq#:122; N Pos.  249,250,251,252,253,254,255,256,257,258,259,260,261,262
Seq#:122; N Pos.  263,264,265,266,267,268,269,270,271,272,273,274,275,276
Seq#:122; N Pos.  277,278,279,280,281,282,283,284,285,286,287,288,289,290
Seq#:122; N Pos.  291,292,293,294
Seq#:128; N Pos.  101,102,103,104,105,106,107,108,109,110,111,112,113,114
Seq#:128; N Pos.  115,116,117,118,119,120,121,122,123,124,125,126,127,128
Seq#:128; N Pos.  129,130,131,132,133,134,135,136,137,138,139,140,141,142
Seq#:128; N Pos.  143,144,145,146,147,148,149,150,151,152,153,154,155,156
Seq#:128; N Pos.  157,158,159,160,161,162,163,164,165,166,167,168,169,170
Seq#:128; N Pos.  171,172,173,174,175,176,177,178,179,180,181,182,183,184
Seq#:128; N Pos.  185,186,187,188,189,190,191,192,193,194,195,196,197,198
Seq#:128; N Pos.  199,200,201,202,203,204,205,206,207,208,209,210,211,212
Seq#:128; N Pos.  213,214,215,216,217,218,219,220,221,222,223,224,225,226
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Seq#:128; N Pos. 227,228,229,230,231,232,233,234,235,236,237,238,239,240
Seq#:128; N Pos. 241,242,243,244,245,246,247,248,249,250,251,252,253,254
Seq#:128; N Pos. 255,256,257,258,259,260,261,262,263,264,265,266,267,268
Seq#:128; N Pos. 269,270,271,272,273,274,275,276,277,278,279,280,281,282
Seq#:128; N Pos. 283,284,285,286,287,288,289,290,291,292,293,294,295,296
Seq#:128; N Pos. 297,298,299,300,301,302,303,304,305,306,307,308,309,310
Seq#:128; N Pos. 311,312,313,314,315,316,317,318,319,320,321,322,323,324
Seq#:128; N Pos. 325,326,327,328,329,330,331,332,333,334,335,336,337,338
Seq#:128; N Pos. 339,340,341,342,343,344,345,346,347,348,349,350,351,352
Seq#:128; N Pos. 353,354,355,356,357,358,359,360,361,362,363,364,365,366
Seq#:128; N Pos. 367,368,369,370,371,372,373,374,375,376,377,378,379,380
Seq#:128; N Pos. 381,382,383,384,385,386,387,388,389,390,391,392,393,394
Seq#:128; N Pos. 395,396,397,398,399,400,401,402,403
Seq#:131; N Pos. 217,218,219,220,221,222,223,224,225,226,227,228,229,230
Seq#:131; N Pos. 231,232,233,234,235,236,237,238,239,240,241,242,243,244
Seq#:131; N Pos. 245,246,247,248,249,250,251,252,253,254,255,256,257,258
Seq#:131; N Pos. 259,260,261,262,263,264,265,266,267,268,269,270,271,272
Seq#:131; N Pos. 273
Seq#:132; N Pos. 874,879,885,887,890,894,896,899,921,924,926,931,933,944
Seq#:132; N Pos. 950,975,977,988,993,995,1007,1013,1030,1037,1050,1061
Seq#:133; N Pos. 295
Seq#:141; N Pos. 319,497
Seq#:143; N Pos. 289
Seq#:146; N Pos. 371,391,406,427
Seq#:152; Xaa Pos. 14,21
Seq#:158; Xaa Pos. 41,57
Seq#:209; Xaa Pos. 80
Seq#:215; Xaa Pos. 46
Seq#:216; Xaa Pos. 6,8
Seq#:220; Xaa Pos. 17
Seq#:224; Xaa Pos. 3,11,14
Seq#:241; Xaa Pos. 6,7,9,13,23,27,28,29,30,31,38,39,40,43,45,47
Seq#:242; Xaa Pos. 53
Seq#:247; Xaa Pos. 38
Seq#:250; Xaa Pos. 6
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```
L:94   M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:420
L:96   M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:480
L:98   M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:540
L:279  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:281  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:60
L:308  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:60
L:548  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:1320
L:688  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:240
L:690  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:300
L:694  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:420
L:696  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:480
L:702  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:660
L:704  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:720
L:706  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:780
L:1089 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:120
L:1091 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:180
L:1093 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:240
L:1095 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:300
L:2061 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:180
L:2069 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:420
L:2117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:300
L:2136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:120
L:2251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:360
L:2382 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:300
L:2384 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:360
L:2386 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:420
L:2388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:480
L:2680 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:7140
L:2815 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:74 after pos.:60
L:3034 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83 after pos.:300
L:3036 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83 after pos.:360
L:3038 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83 after pos.:420
L:3040 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83 after pos.:480
L:3042 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83 after pos.:540
L:3069 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84 after pos.:0
L:3172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:960
L:3174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:1020
L:3176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:1080
L:3215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:88 after pos.:420
L:3338 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91 after pos.:360
L:3340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91 after pos.:420
L:3385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:92 after pos.:540
L:3408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:240
L:3410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:300
L:3412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:360
L:3414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:420
L:3416 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:480
L:3418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:540
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L:3420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:600
L:3480 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95 after pos.:420